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| 10/577,443 | 04/27/2006 | Ranjit Malik | 3900-0215 | 3438 |
| 26587 7590 02/18/2010 MCNEES WALLACE & NURICK LLC 100 PINE STREET P.O. BOX 1166 HARRISBURG, PA 17108-1166 | | | | |
| EXAMINER | | | | |
| TRAN, THAO T | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/577,443

Applicant(s)

MALIK ET AL.

Examiner

Thao T. Tran

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/22)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 4/27/06 11/9/07

DETAILED ACTION

1. This is in response to the Amendment filed on 11/06/2009.
2. Claims 1-41 are currently pending in this application. Claims 1, 16, 25, and 40 have been amended.
3. In light of the Amendment, the previous Restriction requirement has been withdrawn. Claims 25-40 are now rejoined with claims 1-24 and 41.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5, 10, 15-18, 22, 25-27, 29, 34, 39-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Stueben (US Pat. 4,111,769).

Stueben discloses a radiation curable pressure sensitive adhesive, comprising a polyoxyethylene polymer, a liquid carbamoyloxy alkyl acrylate, and a photoinitiator (see abstract). The polyoxyethylene copolymer, the acrylate component, and the initiator are present in an amount of 55, 45, and 3 parts respectively in a total of 103 parts (see Compositions No. 1-3, col. 6, ln. 10-17). The photoinitiators used include benzophenone (see col. 3, ln. 26-27).

The composition is applied on a backing tape (see col. 1, ln. 59-62).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-13, 15-37, 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagio et al. (US Pat. 4,524,104).

Hagio discloses a pressure sensitive adhesive, comprising an acrylic copolymer, a blocked polyisocyanate, and a cycloamidine (see abstract). The blocked polyisocyanate can be an NCO-terminated prepolymer formed from polyisocyanate and polyether polyol (see col. 7, ln. 37-43). The polyether polyols are adducts of alkylene oxides such as ethylene oxide, which appears to read on the presently claimed polyether polyol.

The adhesive further comprises additives including tackifiers such as rosin in 0-30% by weight and plasticizers such as dioctyl phthalate (see paragraph bridging col. 8-9). The total amount of these additives would be 0-70%, yielding an amount of 0-40% of the plasticizers. Note that the tackifiers can also include phenolic modified terpene resins, which appear to read on the presently claimed plasticizer. The composition also comprises an initiator in an amount of 0.01-5% (see col. 5, ln. 41-43). The acrylic copolymer component includes at least one ethylenically unsaturated monomer (b) containing an epoxy-containing vinyl monomer (see claims 14, 26, 27), in an amount of 0-80% of monomer (b). Since the amount of monomer (b) is 90-99.5% by weight of the acrylic copolymer (see claim 14), and the amount of the acrylic copolymer in the adhesive is about 94% or above (see Examples 1-4), the amount of the epoxy-

containing vinyl monomer in the adhesive would be about 0-71%, significantly overlapping the presently claimed range.

Hagio differs from the presently claimed invention in that the reference does not teach a specific amount of the polyether polyol in the blocked polyisocyanate prepolymer. However, it would have been obvious to one of ordinary skill in the art that the amount of the polyol in the prepolymer would have been determined by routine experimentation in order to obtain the desired results.

The adhesive is coated on a substrate or release layer to form an adhesive tape. The substrate can be paper or plastic film, cloth (flexible substrate) (see claims 1-7; col. 9, ln. 26-31). The adhesive can be useful for labels, tapes, and medical applications (see col. 9, ln. 63-68).

Regarding the adhesive being applied on the second side of the backing material (substrate), it would have been obvious to one of ordinary skill in the art that it has been commonly used in the art to have the adhesive on both sides of the backing layer in laminating layers, and such application would have been considered a design choice, depending upon user's preference and intended use.

With respect to the use of the adhesive tape in the assembly of touch screens to liquid crystal display screens or as protective covering or a light guide, it would have been obvious to one of ordinary skill in the art that the adhesive tape would also have been applied in these structures. This is because Hagio teaches that the adhesive can be used in other laminate structures and the like (see col. 9, ln. 63-65).

8. Claims 4, 6-9, 11-13, 18-24, 28, 30-33, 35-37, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stueben as applied to claims 1-13, 15-37, 39-41 above, and further in view of Hagio.

Stueben and Hagio are set forth above and incorporated herein.

Stueben does not teach the adhesive composition comprising other additives.

The adhesive further comprises additives including tackifiers such as rosin in 0-30% by weight and plasticizers such as dioctyl phthalate (see paragraph bridging col. 8-9). The total amount of these additives would be 0-70%, yielding an amount of 0-40% of the plasticizers. Note that the tackifiers can also include phenolic modified terpene resins, which appear to read on the presently claimed plasticizer. The acrylic copolymer component includes at least one ethylenically unsaturated monomer (b) containing an epoxy-containing vinyl monomer (see claims 14, 26, 27), in an amount of 0-80% of monomer (b). Since the amount of monomer (b) is 90-99.5% by weight of the acrylic copolymer (see claim 14), and the amount of the acrylic copolymer in the adhesive is about 94% or above (see Examples 1-4), the amount of the epoxy-containing vinyl monomer in the adhesive would be about 0-71%, significantly overlapping the presently claimed range.

Therefore, it would have been obvious to one of ordinary skill in the art to have employed other additives, as taught by Hagio, in the composition of Stueben. This is because Hagio teaches that addition of these would have enhanced tackiness stability, smoothness, and storage stability of the adhesive.

Regarding the adhesive being applied on the second side of the backing layer, it would have been obvious to one of ordinary skill in the art that it has been commonly used in the art to

have the adhesive on both sides of the backing layer in laminating layers, and such application would have been considered a design choice, depending upon user's preference and intended use.

With respect to the use of the adhesive tape in the assembly of touch screens to liquid crystal display screens or as protective covering or a light guide, it would have been obvious to one of ordinary skill in the art that the adhesive tape would also have been applied in these structures. This is because Hagio teaches that the adhesive can be used in other laminate structures and the like (see col. 9, ln. 63-65).

9. Claims 14 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagio or Stueben as applied to claims 1 and 25 above, and further in view of Smith (US Pat. 4,256,828).

Stueben and Hagio are set forth above and incorporated herein.

Neither reference teaches the adhesive composition comprising a photoinitiator that is onium salt cationic.

Smith teaches an adhesive composition, comprising an epoxy-containing component, a hydroxyl-containing component, and an onium salt cationic photoinitiator (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art to have employed the onium salt cationic photoinitiator, as taught by Smith, in the invention of Stueben or Hagio, because Smith discloses that the use of these photoinitiators would provide a readily, thermally stable photocurable composition with excellent shelf life property, that provides a flexible coating.